

REMARKS

The Examiner's indication of allowability of claim 28, if rewritten in independent form, is acknowledged and appreciated.

Claims 26-27 and 29 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Choi et al. Applicants respectfully traverse this rejection, because the cited reference does not disclose (or suggest) the claimed mask used for irradiating the surface of an alignment layer with ultraviolet light, as described in the claims.

The present invention is directed to a method of fabricating a liquid crystal display device including placing a mask on a substrate so that the surface of an alignment layer can be irradiated with ultraviolet light in oblique directions. The mask includes a body portion and a plurality of cavities which changes the light path of the ultraviolet light. In this manner, the liquid crystals align in predetermined directions without the disadvantages associated with conventional method for aligning the liquid crystals using an alignment layer, such as rubbing.

The Choi et al. reference is directed to a large scale polarizer for use in a photo-alignment process. Fig. 5A of the reference shows a polarizer system including a large scale polarizer 10, an alignment layer 50 and a mask 80 provided over the alignment layer.

The Office Action contends that Figs. 4A and 4B disclose the claimed mask. Applicants respectfully disagree. Figs. 4A and 4B of Choi et al. disclose a polarizer 10

shown in Fig. 5A, and not a mask. “FIG. 4A is a plan view of a large scale polarizer 10 according to an implementation of the present invention” (col. 3, lines 62-67).

While the Choi et al. reference does disclose a mask 80, it merely describes that the light transmitted through the polarizer is passed through the mask 80 (col. 4, lines 60-67). The reference provides no other details regarding the mask 80 in the polarizer system of Choi et al. In other words, the reference does not disclose a mask having, among other things, a plurality of cavities having oblique surfaces for changing the path of light incident on the mask. Claims 26-27 and 29 are allowable over Choi et al. for at least these reasons.


Moreover, the polarizer 10 of Choi et al. does not disclose (or suggest) the claimed features of the mask of the present invention. The polarizer 10 of Choi et al. includes a number of polarizer holders 13 formed in a generally square lattice structure. A corresponding flat square quartz substrate is inserted in an angle from top to the bottom of each individual polarizer holder, as shown in Fig. 4B. Thus, the claimed body portion of the mask would arguably be disclosed by the quartz substrate 15, since the body portion has to have a first flat surface and an opposite second flat surface, as required by the claim. The entire top and the bottom portions of the polarizer 10 itself, including the holders 13, cannot be the body portion, because as shown in Fig. 4B, the sectional view of the polarizer shows that the top and bottom of the polarizer 10 is not flat, since the flat quartz substrates are placed in a diagonal angle extending from the top to the bottom of the polarizer holders.

Further, the body portion itself, i.e., the quartz substrates 15 of the polarizer, is flat with a certain thickness, and does not have any cavities within the thickness of the body portion. Accordingly, the quartz substrate in the polarizer cannot disclose (or suggest) the first, second, third and fourth oblique surfaces that are formed by the cavities formed in the body portion of the mask, as in the present invention. For these reasons also, claim 26 and its dependent claims 27-29 are allowable over Choi et al.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. The Examiner should contact Applicants' undersigned attorney if a telephone conference would expedite prosecution.

Respectfully submitted,

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